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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/325,636	06/04/1999	HIROAKI OOKI	P99.0601	3047

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ROBERT J. DEPKE LEWIS T. STEADMAN
HOLLAND & KNIGHT LLC
131 SOUTH DEARBORN
30TH FLOOR
CHICAGO, IL 60603

EXAMINER

MOE, AUNG SOE

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 11/19/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/325,636

Applicant(s)
Hiroaki Ooki

Examiner
Aung Moe

Art Unit
2612



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 28, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, and 5 is/are rejected.
- 7) ☒ Claim(s) 2 and 4 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3 and 5 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al. (U.S. 6,515,703).

Regarding claim 1, Suzuki '703 discloses a driving method for a solid-state image sensing device (Figs. 7A to 7D; col. 1, lines 25+) having a plurality of sensor portions (i.e., the

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element 20 of Fig. 7A) arranged two-dimensionally in a horizontal and vertical directions, and a vertical charge transfer portion (i.e., the element 21 of Fig. 7A) adjacent said plurality of sensor portions (20) provided with transfer electrodes (i.e., noted from Figs. 7A-7D that the transfer electrodes are connected between the photosensors 20 and the transfer gate of the vertical transfer portions 21 respectively to read out the charges from the image sensor by respectively applying the driving pulses V1-V4 during a vertical transfer operation; see Figs. 15; col. 11, lines 55-col. 12, lines 15+), comprising the steps of:

selectively applying high level driving pulses to groups of said transfer electrodes in a vertical transfer period (i.e., noted from Figs. 7A and 15 that the driving pulses' V1-V4 are respectively applying to groups of transfer electrodes connected between the plurality of sensors 20 and the vertical transfer gates V1-V4; col. 11, lines 55+ and col. 12, lines 1+); and transferring the signals charges read out from said plurality of sensor portions in the vertical directions (i.e., col. 12, lines 1-15);

wherein a period during a vertical transfer operation (i.e., noted the period for V1-V4 for vertical transfer operation shown in Fig. 15), in which the number of groups of transfer electrodes receiving high level driving pulses becomes minimum (i.e., noted from Fig. 15I that the period between t1-t2, only minimum of two transfer electrodes are connected to the vertical transfer gates V1 and V3 which are set high) is set longer than that of the other sectional periods (i.e., noted from Fig. 15I that the period between t1-t2, which contain only minimum of two high driving pulses, is set longer than the sections between t4-t5, t5-t6, t6-t7 and t9-t10, which

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contains more than two high driving pulses; see Fig. 19(I); col. 14, lines 25+, col. 15, lines 60+ and col. 18, lines 25+).

Regarding claim 3, the method claim 3 is corresponded to the claim 1 as rejected above, thus, the claim 3 is rejected for the same reasons with respect to claim 1 as discussed above (i.e., see Examiner's comments with respect to claim 1 above).

Regarding claim 5, Suzuki '703 discloses a charge transfer device (Figs. 7A to 7D) having a charge transfer portion with transfer electrodes (i.e., noted from Figs. 7A-7D that the transfer electrodes are connected between the photosensors 20 and the transfer gate of the vertical transfer portions 21 respectively to read out the charges from the image sensor by respectively applying the driving pulses V1-V4 during a vertical transfer operation; see Figs. 15; col. 11, lines 55-col. 12, lines 15+);

wherein high level driving pulses are selectively applied to different groups of said transfer electrodes in respective time periods in a charge transfer period (i.e., as shown in Figs. 7A-7D and 15, based on either the filed reading or frame reading, the transfer pulses for the vertical transfer gates V1-V4 are selectively applied to the different groups of the transfer electrodes for selectively read out the charges from the specific rows; see col. 13, lines 1-5, col. 18, lines 2+); signal charges in the charge transfer portion are transferred (i.e., col. 1, lines 30+ and col. 12, lines 2+); and

a period in a charge transfer operation (i.e., the period between t1 and t2 as shown in Figs. 15I and 19I), in which a number of groups of said transfer electrodes (i.e., all the transfer

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electrodes connected to the V1/V3) receiving high level driving pulses become minimum (i.e., noted from Fig. 15I that the period between t1-t2, only minimum of two transfer electrodes are connected to the vertical transfer gates V1 and V3 which are set high) is longer than that of the other periods (i.e., noted from Fig. 15I that the period between t1-t2, which contain only minimum of two high driving pulses, is set longer than the sections between t4-t5, t5-t6, t6-t7 and t9-t10, which contains more than two high driving pulses; see Fig. 19(I); col. 14, lines 25+, col. 15, lines 60+ and col. 18, lines 25+).

Allowable Subject Matter

4. Claims 2 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this final action should be mailed to:

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or Faxed to:

**(703) 872-9306, (for formal communications; please mark "EXPEDITED
PROCEDURE").**

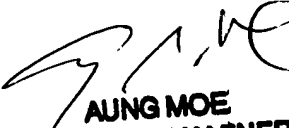
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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Aung S. Moe** whose telephone number is **(703) 306-3021**. The examiner can normally be reached on Monday-Friday from 9:00 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reach on **(703) 305-4929**.

Any inquiry of a general nature or relating to the status of this application should be directed to the customer service number **(703) 306-0377**.


AUNG MOE
PRIMARY EXAMINER

A. Moe

November 10, 2003